

SB-516 - Application No. 10/530,967
Response to Office action 4/19/2006
Response submitted July 18, 2006

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-10 (canceled).

Claims 11-20 (canceled).

Claim 21 (previously presented). A cutting tool for turning and boring into solid material, comprising:

a drill shank defining a drill axis and having an end;

a cutting head disposed at said end and having a straight, front cutting edge running substantially transversely with respect to said drill axis, said front cutting edge being disposed to cut as far as said drill axis and enclosing therewith an angle α of less than 90° , and an adjacent straight lateral cutting edge for cutting a wall of a bore, said lateral cutting edge enclosing an angle β of more than 90° with a perpendicular to said drill axis and merging into a straight, rear cutting edge running substantially transversely with respect to said drill axis;

said lateral cutting edge being formed on a section of said cutting head projecting from said drill shank by a height h having a value between 5% and 40% of a drill diameter d and having a width b having a value between 5% and 40% of the drill diameter d , and a ratio of the height h to the width b lying in a range from substantially 1:0.7 to 1:1.3, and said rear cutting edge enclosing an angle γ of less than 90° with said drill axis.

Claim 22 (previously presented). The cutting tool according to claim 21, wherein said section projects from said drill shank by a height h having a value between 5% and 30% of said drill diameter and by a width b having a value between 10% and 30% of said drill diameter.

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Claim 23 (previously presented). The cutting tool according to claim 21, wherein said front cutting edge runs continuously straight, at least as far as said drill axis.

Claim 24 (previously presented). The cutting tool according to claim 21, wherein said front cutting edge encloses an angle α of about 89.5° with said drill axis.

Claim 25 (previously presented). The cutting tool according to claim 21, wherein said lateral cutting edge encloses an angle β with the perpendicular to said drill axis, and said angle β is substantially 91° .

Claim 26 (previously presented). The cutting tool according to claim 21, wherein said rear cutting edge encloses an angle γ of about 89° with said drill axis.

Claim 27 (previously presented). The cutting tool according to claim 21, wherein said front cutting edge has a cutting edge section beyond said drill axis enclosing an angle κ of between 5° and 20° with the perpendicular to said drill axis.

Claim 28 (previously presented). The cutting tool according to claim 21, wherein said cutting head is an interchangeable cutting insert.

Claim 29 (previously presented). The cutting tool according to claim 28, wherein said interchangeable cutting insert is formed as a reversible cutting plate with a substantially rectangular outline formed with two projecting sections disposed opposite each other in an inverted mirror-image relationship.

Claim 30 (currently amended). The cutting tool according to ~~claim 28, wherein~~ claim 29, wherein said rectangular outline is a substantially square outline.

Claim 31 (previously presented). In combination with a cutting tool according to claim 28, a cutting insert configured for mounting to the cutting tool.